

1. Identification

Product identifier	DuraFume® II		
Other means of identification	70-UTL	EPA Registration Number	75341-21
SDS number			
Recommended use	Wood preservative for utility poles		
Recommended restrictions	None known.		

Manufacturer/Importer/Supplier/Distributor information

Company name	Osmose Utilities Services, Inc.		
Address	635 Hwy 74 S Peachtree City, GA 30269 US		
Telephone	Phone Number:	770-632-6700	
	Osmose Products Group:	716-319-3420	
Website	www.osmoseutilities.com		
E-mail	products@osmose.com		
Contact person	Osmose Products Group		
Emergency phone number	CHEMTREC:	1-800-424-9300	

2. Hazard(s) identification

Physical hazards	Not Classified.	
Health hazards	Acute toxicity, oral	Category 4
	Acute toxicity, inhalation	Category 4
	Skin corrosion/irritation	Category 2
	Serious eye damage/eye irritation	Category 2
	Sensitization, skin	Category 1B
	Specific target organ toxicity, single exposure	Category 3

Label elements



Signal word	Warning
Hazard statement	Harmful if swallowed or if inhaled. Causes skin irritation. Causes serious eye irritation. May cause an allergic skin reaction. May cause respiratory irritation.
Precautionary statement	
Prevention	Use only outdoors or in a well-ventilated area. Avoid breathing dust. Wear protective gloves and clothing. Wear eye protection. Do not eat, drink or smoke when using this product. Wash hands thoroughly after handling. Contaminated work clothing should not be allowed out of the workplace. Avoid release to the environment.
Response	If SWALLOWED: Immediately call a poison center or doctor. Rinse mouth. Do not induce vomiting. IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower. Wash contaminated clothing before reuse. Immediately call a poison center or doctor. IF ON SKIN: Wash with plenty of soap and water. If skin irritation or rash occurs: Get medical attention. IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Immediately call a poison center or doctor. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a poison center or doctor.

Storage	Store locked up. Store away from incompatible materials.
Disposal	Dispose of contents/container in accordance with local, regional, national and international regulations.
Hazard(s) not otherwise classified (HNOC)	None.
Supplemental information	Not applicable.

3. Composition/information on ingredients

Mixtures

Chemical name	CAS number	%
2H-1,3,5-thiadiazine-2-thione, Tetrahydro-3,5-dimethyl	533-74-4	95-100

Composition comments	All concentrations are in percent by weight unless ingredient is a gas. Gas concentrations are in percent by volume.
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4. First-aid measures

Inhalation	Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention. For breathing difficulties, oxygen may be necessary. If individual experiences nausea, headache, dizziness, has difficulty in breathing or is cyanotic, seek a health care professional immediately.
Skin contact	Remove contaminated clothing immediately and wash skin with soap and water for at least 20 minutes. In case of eczema or other skin disorders: Seek medical attention and take along these instructions.
Eye contact	Do not rub eyes. Immediately flush with plenty of water for up to 15 minutes. Remove any contact lenses and open eyelids wide apart. Get medical attention promptly if symptoms occur after washing.
Ingestion	Rinse mouth thoroughly with water. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Do not induce vomiting unless instructed by to do so by medical personnel. If vomiting occurs, the head should be kept low so that stomach vomit doesn't enter the lungs. Get medical attention immediately. Never give anything by mouth to an unconscious person.
Most important symptoms/effects, acute and delayed	Irritation of eyes. Symptoms include itching, burning, redness and tearing. Itching, redness, swelling, burning or blistering of skin. Sensitization. Dust or vapor may irritate the throat and respiratory system and cause coughing. Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea.
Indication of immediate medical attention and special treatment needed	Provide general supportive measures and treat symptomatically. Keep victim warm. Keep victim under observation. Symptoms may be delayed.
General information	Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves.
Notes to physician	Probable mucosal damage may contraindicate gastric lavage.

5. Fire-fighting measures

Suitable extinguishing media	Extinguish with dry chemical or carbon dioxide.
Unsuitable extinguishing media	Do not use water or foam.
Specific hazards arising from the chemical	By heating and fire or contact with water, toxic vapors/gases may be formed.
Hazardous thermal decomposition products	Decomposition products may include the following materials: carbon dioxide, carbon monoxide, nitrogen oxides, sulfur oxides.
Special protective equipment and precautions for firefighters	Wear full protective clothing. Wear self-contained breathing apparatus with a full facepiece operated in the positive pressure demand mode when fighting fires.

Fire-fighting equipment/instructions	Cool containers exposed to heat with water spray and remove container, if no risk is involved.
Specific methods	Use standard firefighting procedures and consider the hazards of other involved materials.
General fire hazards	Material will burn in a fire. Dust may form explosive mixture with air.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures	No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Keep away from water. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.
Methods and materials for containment and cleaning up	Initially minimize area affected by the spill or leak. Block any potential routes to water systems (e.g., sewers, streams, lakes, etc.). Based on the product's toxicological and chemical properties, and on the size and location of the spill or leak, assess the impact on contaminated environments (e.g. water systems, ground, air equipment, etc.). There are no methods available to completely eliminate any toxicity this product may have on aquatic environments. Minimize adverse effects on these environments. Determine if federal, state, and/or local release notification is required. Recover as much of the pure product as possible into appropriate containers. Later, determine if this recovered product can be used for its intended purpose. Address clean-up of contaminated environments. Spill or leak residuals may have to be collected and disposed of. Clay, soil, or commercially available absorbents may be used to recover any material that cannot readily be recovered as pure product.
Environmental precautions	Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

7. Handling and storage

Precautions for safe handling	Persons with a history of skin sensitization problems should not be employed in any process in which this product is used. Do not get in eyes or on skin or clothing. Do not ingest. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Keep in the original container, keep tightly closed when not in use. Protect from moisture. Empty containers retain product residue and can be hazardous. Do not reuse container. Remove contaminated clothing and protective equipment before entering eating areas. Workers should wash hands and face before eating, drinking and smoking. Put on appropriate personal protection equipment. Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed.
Conditions for safe storage, including any incompatibilities	Store in accordance with local regulations. Store locked up. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area. Store away from incompatible materials (see Section 10 of the SDS) and food and drink. Keep away from water or moist air. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination. Empty containers retain product residue and can be hazardous. Do not reuse container.

8. Exposure controls/personal protection

Occupational exposure limits	No exposure limits noted for ingredient(s).
Biological limit values	No biological exposure limits noted for the ingredient(s).
Appropriate engineering controls	Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level. Eye wash fountain and emergency showers are recommended when using this product.
Individual protection measures, such as personal protective equipment	
Eye/face protection	Wear goggles or face shield. Eye wash fountains in the work place are recommended.
Skin protection	
Hand protection	Wear appropriated chemical resistant gloves, rubber.
Other	Wear suitable protective clothing to prevent skin contact.

Respiratory protection	Although no exposure limit has been established for this product, the OSHA PEL for Particulates Not Otherwise Regulated (PNOR) of 15 mg/m ³ - total dust, 5mg/m ³ - respirable fraction is recommended. In addition, the ACGIH recommends 3 mg/m ³ - respirable particles and 10mg/m ³ - inhalable particles for Particles (insoluble or poorly soluble) Not Otherwise Specified (PNOS). The following respirator is recommended if airborne concentrations exceed the appropriate standard/guideline. NIOSH approved, air-purifying particulate respirator with N-95 filters.
General hygiene considerations	When using, do not eat, drink or smoke. Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants. Contaminated work clothing should not be allowed out of the workplace.

9. Physical and Chemical Properties

Appearance

Physical state	Solid. (Crystalline)
Color	White.
Odor	Sulfurous. (Slight)
Odor threshold	Not available.
pH	Not available.
Melting point/freezing point	102.2 – 105.5°C (216 – 222°F) / Not available.
Initial boiling point and boiling range	Not available.
Flash Point	Not available.
Evaporation rate	Not available.
Flammability (solid, gas)	Combustible solid.

Upper/lower flammability or explosive limits

Flammability limit - lower (%)	Not available.
Flammability limit - upper (%)	Not available.
Vapor pressure	Not applicable.
Vapor density	Not applicable.
Relative density	Not applicable.

Solubility(ies)

Solubility (water)	Partially soluble in cold and hot water, 0.2 g/l.
Partition coefficient (n-octanol/water)	Not available.
Auto-ignition temperature	Not available.
Decomposition temperature	Not available.
Viscosity	Not applicable.

Other Information

Bulk Density	530 kg/m ³ .
Molecular weight	Not determined.
Surface tension	Not applicable.

10. Stability and reactivity

Reactivity	The product is stable and non-reactive under normal conditions of use, storage and transport.
Chemical stability	Material is stable under normal conditions.
Possibility of hazardous reactions	No dangerous reaction known under conditions of normal use.
Conditions to avoid	Moisture. Contact with incompatible materials.
Incompatible materials	Moisture. Strong oxidizing agents. Acids.
Hazardous decomposition products	Thermal decomposition may produce oxides of nitrogen and oxides of sulfur. Contact with water liberates toxic gas. Decomposition products on contact with water: Methyl isocyanate Formaldehyde Monomethylamine Hydrogen sulfide Carbon Disulfide.

11. Toxicological information

Information on likely routes of exposure	Routes of entry anticipated: Dermal contact. Eye contact. Inhalation. Ingestion.
Potential acute health effects	
Ingestion	Harmful if swallowed. Irritating to mouth, throat and stomach.
Inhalation	Harmful if inhaled. May cause respiratory irritation.
Skin contact	Causes skin irritation. May cause an allergic skin reaction.
Eye contact	Causes serious eye irritation.
Symptoms related to the physical, chemical and toxicological characteristics	Irritation of eyes. Symptoms include itching, burning, redness and tearing. Itching, redness, swelling, burning or blistering of skin. Sensitization. Dust may irritate throat and respiratory system and cause coughing. Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea.

Information on toxicological effects

Acute toxicity

Toxicological test data from manufacturer:

Product/Ingredient Name	Result	Species	Dose	Exposure
DuraFume II	LD50 Oral	Rat	363 mg/kg	-
DuraFume II	LD50 Dermal	Rabbit	>2000 mg/kg	-
DuraFume II	LC50 Inhalation, Dusts and mists	Rat	>1.7 mg/l	4 hours

Component analysis

2H-1,3,5-thiadiazine-2-thione, Tetrahydro-3,5-dimethyl

LC50 Inhalation vapor	Rat	8.4 mg/L	4 hours
LD50 Dermal	Rabbit	7 g/kg	
LD50 Dermal	Rat	2260 mg/kg	
LD50 Oral	Rat	320 mg/kg	

Skin corrosion/irritation	Causes skin irritation.
Serious eye damage/eye irritation	Causes serious eye irritation.
Respiratory or skin sensitization	
Respiratory sensitization	Not a respiratory sensitizer.
Skin sensitization	May cause an allergic skin reaction.
Germ cell mutagenicity	Based on available data, the classification criteria are not met.

Carcinogenicity	This product is not considered to be a carcinogen by IARC, ACGIH, NTP, or OSHA.
Reproductive toxicity	Based on available data, the classification criteria are not met.
Specific target organ toxicity - single exposure	Not classified.
Specific target organ toxicity - repeated exposure	Not classified.
Aspiration hazard	Respiratory tract irritation.
Chronic effects	Prolonged skin contact may cause dermatitis.

12. Ecological information

Ecotoxicity Toxic to fish and aquatic invertebrates, oysters, and shrimp.

Ecotoxicity data from manufacturer:

Product/ingredient name	Result	Species	Exposure
DuraFume II	Acute EC50 11.2 mg/l	Daphnia	48 hr
	Acute EC50 0.3 mg/l	Daphnia	48 hr
	Acute LC50 16.2 mg/l	Fish	96 hr
	Acute LC50 0.3 mg/l	Fish	96 hr
	Acute LC50 0.16 mg/l	Fish	96 hr

Persistence and degradability No data is available on the degradability of this product.

Bioaccumulative potential Not expected to bioaccumulate on the basis of the low octanol-water partition coefficient.

Partition coefficient n-octanol / water (log Kow)

2H-1,3,5-thiadiazine-2-thione, Tetrahydro-3,5-dimethyl (CAS 533-74-4) 0.15, at pH 7

Mobility in soil This product has very low solubility in water and low mobility in the environment.

Other adverse effects No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation potential, endocrine disruption, global warming potential) are expected from this component.

13. Disposal considerations

Disposal instructions Dispose in accordance with applicable federal, state, and local regulations. Do not discharge into drains, water courses or onto the ground. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

Pesticide disposal Follow container label instructions for disposal of wastes generated during use in compliance with the EPA product label. If DuraFume II is disposed of in its purchased form, this product would not be a hazardous waste by listing or by characteristic. However, under RCRA, it is the responsibility of the product user to determine at the time of disposal, whether a material containing the product or derived from the product should be classified as a hazardous waste (40 CFR 261.20-24). Questions regarding disposal can be directed to EPA's RCRA Hotline at (800) 424-9346. Dispose of waste material in accordance with Local, State, Federal Regulations.

Container disposal Do not reuse or refill this container. Empty contents completely. Puncture and dispose of empty containers in an approved landfill or by incineration if allowed by local regulations. Since emptied containers may retain product residue, follow label warnings even after container is emptied.

14. Transport information

DOT Not regulated as dangerous goods.

IATA

UN number UN3077

UN proper shipping name Environmentally hazardous substance, solid, n.o.s.
(2H-1,3,5-thiadiazine-2-thione, Tetrahydro-3,5-dimethyl)

Transport hazard class(es)

Class 9

Subsidiary risk -

Label(s)	9
Packing group	III
Environmental hazards	Yes
ERG Code	9L
Marine pollutant	Yes
Special precautions for user	Read safety instructions, SDS and emergency procedures before handling.
IMDG	
UN number	UN3077
UN proper shipping name	Environmentally hazardous substance, solid, n.o.s. (2H-1,3,5-thiadiazine-2-thione, Tetrahydro-3,5-dimethyl)
Transport hazard class(es)	
Class	9
Subsidiary risk	-
Packing group	III
Environmental hazards	Yes
Marine pollutant	Yes. Marine pollutant mark not required when transported in sizes of ≤ 5 L or ≤ 5 kg.
EmS	F-A, S-F
Special precautions for user	Read safety instructions, SDS and emergency procedures before handling.
Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code	Not applicable.

15. Regulatory information

US federal regulations This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

United States inventory (TSCA 8b):

This product is subject to regulation under the US Federal Insecticide, Fungicide and Rodenticide Act (FIFRA) and is therefore exempt from US Toxic Substance Control Act (TSCA) Inventory listing requirements.

TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D):

Not regulated.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050):

Not listed.

CERCLA Hazardous Substance List (40 CFR 302.4):

Not listed.

Superfund Amendments and Reauthorization Act of 1986 (SARA) Hazard categories

Hazard categories	Immediate Hazard - Yes
	Delayed Hazard - Yes
	Fire Hazard - No
	Pressure Hazard - No
	Reactivity Hazard - No

SARA 302 Extremely hazardous substance

Not listed.

SARA 311/312 Hazardous chemical	Immediate (acute) health hazard
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SARA 313 (TRI reporting)

Chemical name	CAS number	% by wt.
2H-1,3,5-thiadiazine-2-thione, Tetrahydro-3,5-dimethyl	533-74-4	95 - 100

Other federal regulations

Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List:

Not regulated.

Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130):

Not regulated.

Safe Drinking Water Act (SDWA):

Not regulated.

FIFRA Information

This chemical is a pesticide product registered by the Environmental Protection Agency and is subject to certain labeling requirements under federal pesticide law. These requirements differ from the classification criteria and hazard information required for safety data sheets, and for workplace labels of non-pesticide chemicals. Following is the hazard information as required on the pesticide label.

Signal Word

DANGER

Precautionary Statement

Corrosive. Causes skin burns. Do not get in eyes, on skin, or on clothing. Maybe fatal if swallowed. Harmful if absorbed through skin. Harmful if inhaled. Avoid breathing dust.

US state regulations

US. New Jersey Worker and Community Right-to-Know Act

2H-1,3,5-thiadiazine-2-thione, Tetrahydro-3,5-dimethyl

US. Massachusetts RTK - Substance List

Not regulated.

US. Pennsylvania Worker and Community Right-to-Know Law

Not listed.

US. Rhode Island RTK

2H-1,3,5-thiadiazine-2-thione, Tetrahydro-3,5-dimethyl (CAS 533-74-4)

US. California Proposition 65:

California Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65): This material is not known to contain any chemicals currently listed as carcinogens or reproductive toxins.

US - California Proposition 65 - Carcinogens & Reproductive Toxicity (CRT):

Not listed.

International Inventories

Country(s) or region	Inventory name	On inventory (yes/no)*
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	Yes

*A "Yes" indicates this product complies with the inventory requirements administered by the governing country(s).

A "No" indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).

16. Other information, including date of preparation or last revision

Issue date	27-October-2015
Revision date	27-October-2015
Version No.	01

HMIS Ratings

Health:	2
Flammability:	1
Physical hazard:	1

NFPA ratings

Health:	2
Flammability:	1
Physical hazard:	1

Disclaimer

Osmose Utilities Services, Inc. cannot anticipate all conditions under which this information and its product, or the products of other manufacturers in combination with its product, may be used. It is the user's responsibility to ensure safe conditions for handling, storage and disposal of the product and to assume liability for loss, injury, damage or expense due to improper use. The information in the sheet was written based on the best knowledge and experience currently available. The information herein is given in good faith but no warranty, expressed or implied, is made, and Osmose Utilities Services, Inc. expressly disclaims liability from reliance on such information.